DOCUMENT RESUME

ED 249 184 SP 025 070

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TITLE Microteaching Handbook; Skills, Planning, and Critiquing.
PUB DATE 84
NOTE 53p.
PUB TYPE Guides - Classroom Use - Materials (For Learner) (051)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Higher Education; Lesson Plans; *Microteaching; Preservice Teacher Education; Protocol Materials; Questioning Techniques; Reinforcement; Student Motivation; *Teacher Behavior; *Teacher Response; *Teaching Skills

ABSTRACT

This handbook, developed for use in a microteaching laboratory, presents information on: (1) the history of microteaching; (2) research supporting microteaching; (3) advantages of microteaching; (4) teaching skill clusters (response repertoire, questioning skills, creating student involvement, increasing student participation, presentation skills); (5) microteaching technical skills; (6) the microteaching clinic; (7) the microlesson; (8) planning for microteaching; (9) the microteaching lesson plan; (10) use of aids in microteaching; (11) the video-taping session; (12) the critique session; (13) skill forms; and (14) critique sheets. Throughout the microteaching process, particular teaching skills are emphasized rather than content. Appendixes include a microlesson plan form, skill forms, and critique sheets. (JD)

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MICROTEACHING HANDBOOK

SKILLS, PLANNING, AND CRITIQUING

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1984

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INTRODUCTION

THE MICROTEACHING CONCEPT

If a prospective teacher were to visit and observe school classrooms over a period of time, he/she would encounter a wide variety of teaching methods. He/she would find some time devoted to lecture, some to large group discussion, some to small group discussion, some to independent study, etc. As teachers operate with these diverse methods, they have need of a variety of teaching skills. All of the skills necessary to operate with various teaching methodology have not been isolated. The point is, however, that teaching, like any other activity can be subdivided into various component parts; each of these parts can be practiced and improved upon separate from the other facets of the total activity. These component parts are frequently referred to as teaching skills.

The teaching skills practicum is based on the assumption that by breaking down the complex teaching act into more easily learned skills, the teacher can gradually acquire a repertoire of teaching skills to use in the actual classroom. By building a repertoire of skills, the teacher is increasing his flexibility and versatility. He/she has more teaching techniques at his/her command in order to adapt his/her teaching style to suit the students' needs or the objectives of the lesson. There is research evidence which indicates that the flexible teacher, the one who can adapt his/her teaching methods, is more effective in producing positive student performance and attitude than a teacher who lacks this versatility.

The purpose of the teaching skills practicum or microteaching is to provide a skill building situation for the prospective teacher; it is not, nor is it intended to be, an actual teaching situation!

In practice, the prospective teacher presents a short lesson (roughly five minutes) to a small group of three-four of his/her peers, in which

the emphasis and concentration is focused upon a particular teaching skill. Content to be used is the teacher's option. Once again, however, it should be noted that emphasis is upon the teaching skill being presented, not the content.

The teacher's presentation of his/her teaching skill is videotaped. Afterwards, the teacher will see a videotape playback and discuss his/her performance with the rest of the group and with a member of the participation program serving as the group facilitator. The intent is that when the prospective teacher goes on to an actual teaching situation (in participation, student teaching, and eventually his/her own classroom), he/she will have benefitted from the feedback and will teach more effectively. The assumption that the teacher will modify his/her behavior in the light of feedback received about his/her own skill demonstration is built into the teaching skills practicum.

The prospective teacher is cautioned, however, not to view a command of various teaching skills and techniques as a panacea for the various ills he/she will encounter in an actual teaching situation and in the total teaching act. For example, the problems of classroom control and discipline are non-existent in the skill building practicum. Its merit lies in the opportunity it provides for prospective teachers to become familiar with and to demonstrate some basic teaching skills.

PURPOSE

Microteaching is an integral part of the teacher education program. For this reason, a carefully planned microteaching laboratory experience is included in the pre-student teaching courses at Bradley University. It is then the purpose of this handbook to acquaint the pre-student teacher with the following elements related to the art of teaching:

(1) Microteaching terminology

(2) A brief history of microteaching

(3) Advantages of microteaching

(4) Microteaching skill clusters

(5) Research on microteaching

(6) Microteaching technical skills

(7) Planning for microteaching

(8) Critiquing a microlesson

(9) Target skill forms

(10) Evaluation forms

DEFINITIONS

Before beginning our inquiry into microteaching, some important terms will be defined. The list of words defined below is not by any means exhaustive, but it is comprehensive enough to give the pre-student teacher a fund of knowledge of words commonly used by course instructors as well as microteaching critiquing staff members. For the purpose of this handbook, the following definitions are used:

Micro - in Greek, this term means "small or little."

Microlesson - a five minute lesson emphasizing one of the technical skills of teaching.

Microteacher - the pre-student teacher demonstrating an identified skill.

Technical skill - one of the isolated skills such as use of examples, reinforcement, etc.

Critique-session - a session designed to analyze the student's microlesson.

Critiquer (facilitator) - a trained person assigned as facilitator and resource person during the critiquing sessions.

Instructor - a member of the college staff specifically assigned to conduct seminars, supervise field experiences and to teach the course.

Microteaching clinic - orientation program usually conducted during the first two weeks of the term to introduce students to microteaching procedures.

Repertoire - a collection of different types of teaching skills.

Handouts - any printed materials given as part of the information necessary for the course.

Microlesson plan - an outline or skeleton of the lesson to be presented, with an explanation as to how the technical skill is to be employed in the lesson.

A BRIEF HISTORY

The microteaching concept was started and developed at Stanford University in the early 1960's. The four names associated with the groundwork are those of Allen, Ryan, Cooper and Bush. The original cycle took the following format:

PLAN - TEACH - OBSERVE (CRITIQUE) - REPLAN - RETEACH - REOBSERVE

Ordinarily, the complete cycle would be dealing with one skill and the same topic. Demonstrations by skilled teachers would always precede the student's presentation. Variations of the original methodology can now be observed in different places. For instance in some institutions, the sequence is PLAN - TEACH - CRITIQUE. This is the first round in which the student demonstrates a particular skill such as Set Induction. During the second round the student is expected to demonstrate a completely different skill, such as Closure, following the same sequence of PLAN- TEACH - CRITIQUE. As a general rule, directions for planning and choice of skills are given in college seminars by instructors.

RESEARCH SUPPORTING MICROTEACHING

Allen and others have concluded that there are four ways that seem to make the most effective use of the microteaching concept. These include:

1. In-house studies designed to optimize the procedures and sequences in the microteaching situation.
2. Research in modeling and supervisory techniques.
3. Task analysis of the teaching act and investigation of the relationship between teaching behaviors and student performance.
4. Aptitude treatment interaction studies which try to provide optimal training procedures for teachers with different abilities, interests, and backgrounds.

Experiments designed to show that microteaching students do better than students who had real classroom experiences were carried out by different people at different times. Anbertine (1964), Allen and Fortune (1966), Kallenbach and Gall (1969), and Brown (1973) experimented with different groups of students and concluded that students trained under microteaching situations were better prepared for classroom teaching than those trained under real classroom situations. (Brown, 1975)

In Sweden, an experiment designed to allow student teachers to distinguish "effective" from "less effective" teacher behavior was conducted. In this case, Flander's interaction analysis was taught to the student teachers so that they could evaluate themselves on videotape. The result was that the use of the videotape approach had created a very positive attitude to self confrontation in these student teachers. (Strikat, Karl - Gustaf, 1972)

In an experiment designed to compare microteaching with a traditional approach to teacher preparation, student teachers were given microteaching and traditional observation treatments. The results were compared with a non-preparation control group. Based on these results, the researcher concluded that students taught by student teachers trained through

microteaching achieved high mean mathematic scores and that they also showed a higher frequency count in classroom participation. (Madike, 1980)

In his position paper, published in the British Journal of Teacher Education in 1980, Dwight Allen, one of the founding fathers of microteaching stated that microteaching is effective in teacher education because of its precision, simplicity, low pressure, low threats, potential for experimentation, adaptability, replicability and ability to be controlled. (Allen, 1980)

ADVANTAGES OF MICROTEACHING

Microteaching offers various advantages; some of which are listed below:

1. It simplifies the complex act of teaching. By isolating specific aspects of teaching, appropriate experiences can gradually be introduced into the prospective teacher's training added to his/her reservoir of skills.
2. The results of the skill-building presentation can be viewed under controlled conditions. It allows for immediate feedback among the teacher, his/her peers, and the group facilitator.
3. It provides a realistic perception of performance for the prospective teacher and serves as an effective self-appraisal device.
4. It provides a "low risk" situation for the prospective member.
5. The complexities of normal classroom teaching are reduced, thus allowing the prospective teacher to concentrate on the acquistion of a teaching skill.
6. It provides a "low threat" situation in which to practice teaching skills, a situation which should be more conducive to learning than the high anxiety level exhibited by many beginning teachers when practicing in actual classrooms.
7. It allows the prospective teacher to perfect certain skills that

he/she will subsequently use in the regular classrooms.

8. A certain teaching skill is consciously presented; emphasis is upon the skill being demonstrated, not the content or the make-up of the class (students).

THE SKILL CLUSTERS

Identified skills have been divided into skill clusters which are presented below:

I. Response Repertoire
   - A. Verbal Responses
   - B. Nonverbal Responses
   - C. Verbal and Nonverbal Responses

II. Questioning Skills
   - A. Fluency in Asking Questions
   - B. Probing Questions
   - C. Higher Order Questions
   - C. Divergent Questions

III. Creating Student Involvement
   - A. Set Induction
   - B. Stimulus Variation
   - C. Closure

IV. Increasing Student Participation
   - A. Reinforcement
   - B. Recognizing Attending Behavior
   - C. Silence and Nonverbal Cues
   - D. Cueing

V. Presentation Skills
   - A. Completeness of Communication
   - B. Lecturing
   - C. Use of Examples

D. Planned Repetition

(M.S.M., 1966)

To assist the microteacher in the planning and demonstration, eleven microteaching skills are discussed below in terms of their typical characteristics. Possible activities the microteacher might want to include in the lesson are also described. These skills are presented in the order they will be presented during the microteaching clinic.

MICROTEACHING TECHNICAL SKILLS

Following is a list of microteaching technical skills and characteristics of each; many are accompanied by possible activities for incorporation in lessons.

A. FLUENCY IN ASKING QUESTIONS

Characteristics:

1. The purpose of this skill is to get comfortable in asking questions of a general nature before moving on to more sophisticated questioning techniques.
2. The emphasis is on how many questions can be profitably asked in a lesson rather than on a specific kind of question. Nevertheless, analysis will include an evaluation of the quality of questions asked; not just any question is automatically appropriate.
3. Questions are of a factual nature and are based on retention rather than reasoning.

Activities:

1. Questions may be asked in such a way as to establish a general pattern or structure or to serve a particular purpose.
2. Questioning may be used so that the teacher will not have to depend too heavily upon the lecture approach.

B. PROBING QUESTIONS

Characteristics:

1. Generally, a probing occurs immediately following a student response.
2. Probing requires students to go beyond the superficial information given in the answer.
3. Probing is used to require students to justify or clarify in some detail their original answer.

Activities:

1. The teacher may use probing questions to elicit a personal interpretation or reflection from the student.
2. Probing questions could be employed to require a student to be more specific in his/her answers.
3. The teacher could use probing questions to get other students to react to the first student's answer, thus drawing more people into the general discussion.

C. DIVERGENT QUESTIONS

Characteristics:

1. There are no correct or wrong answers to these questions.
2. Questions are usually open-ended but generally related to a topic being discussed.
3. This activity allows students to be creative and imaginative.

Activities:

1. The teacher may pose hypothetical, novel, or ideal situations and ask for student input in how to deal with these situations.
2. Questions may be asked to draw upon reality or personal reflections, and may demonstrate the student's attitudes or biases.

3. The teacher may allow students' answers to diverge in several directions in order to establish new areas of consideration.

D. HIGHER ORDER QUESTIONS

Characteristics:

1. The main thrust is to require students to employ thinking skills.
2. Higher order questions require students to use ideas rather than just remember them.
3. This activity is based on reflection and inductive-deductive reasoning skills.

Activities:

1. Ask questions to solve problems. Example: "How would you deal with the present inflationary trend?"
2. Ask questions of comparison or contrast. Example: "How would you compare or contrast the present Mid-East conflict with the one in 1967?"
3. Ask questions of evaluation. Example: "How do you interpret or evaluate the current hearings on government corruption?"
4. Ask questions to demonstrate an understanding of concepts. Example: "How does the GNP affect the national economy?"
5. Ask questions of relationship perception. Example: "What is the relationship between education and social class?"
6. Ask questions of inference. Example: "We may expect what life-style changes from a person who increases his/her education?"

E. SET INDUCTION

Characteristics:

1. Set induction is basically a motivating skill, an initiating activity of the teacher.
2. The goal of this skill is to get students properly prepared and generally involved in the task at hand.
3. This skill is characterized by novel and interesting introductions of the up-coming activity and the establishing of facilitative communication for future work in an area of study.

Activities:

1. The motivating set could include a startling statement by the teacher or other well-known individual that may be controversial or one-sided.
2. The arousing of student interest could also be accomplished through changing frames of reference or role-playing by the students.
3. After proper motivation and interest arousal, the facilitating set could be accomplished by supplying clues of other interesting activities and materials that are coming up in the class.

F. STIMULUS VARIATION

Characteristics:

1. This skill is designed to keep the class from becoming boring and the students from becoming apathetic.
2. The teacher varies both his/her verbal and nonverbal behaviors in order to keep the students alert and attentive.

3. Stimulus variation is also oriented toward the fullest student involvement in both the cognitive and affective domains; thus, it is a very comprehensive skill.

Activities:

1. Gestures, body movement, and deliberate pausing are effective means of emphasis that the teacher can employ to vary the physical stimulus.
2. Changing the patterns of interaction can be effective variations. Examples: The teacher focuses attention on one or two students for a short time to pursue a point; or the teacher allows two or more students to pursue an exchange without interferences.
3. Varying the sensory channels of the students is most effective to hold attention. Example: Use of the blackboard, diagrams, films, record players, real objects, various forms of AV materials, etc.
4. The use of all forms of questioning with the appropriate reinforcement is an effective stimulus variation.
5. By using examples and controversial issues the teacher may maximize student involvement.

G. CLOSURE

Characteristics:

1. Closure is complimentary to set induction and consists of teacher activities that will help the students use the total concept and the idea in light of pieces of factual information presented in the lesson.
2. Closure is attained when the major purposes and principles of a lesson, or portion of a lesson, are judged to have been

learned so that new knowledge can be related to past knowledge.

3. Closure gives students needed feelings of achievement as they progress through the lesson.

4. Closure may be used at any point in a lesson as a summarization and reinforcement or at the end of a lesson to draw the main idea and information together.

Activities:

1. The teacher can provide a consolidation of concepts and ideas covered before moving on to subsequent ideas and concepts.

2. The teacher can review the major points and ideas throughout the lesson.

3. The teacher can build on previous material and show how current and future material demonstrates understanding of a larger concept.

4. By allowing students opportunity to demonstrate what they have learned through pupil practice and pupil summary, all the elements can be organized into a new unity of concepts.

H. REINFORCEMENT

Characteristics:

1. Reinforcement follows a student action, usually a response to a question.

2. Reinforcement is generally positive in nature; thus, it tends to increase student participation.

3. Reinforcement can be for an individual or for a group.

Activities:

1. Reinforcers may be verbal: "good," "excellent," "that is

very interesting," "yes - and "that supports what John said a while ago."

2. Reinforcers may be nonverbal: a nod, a smile, a pat on the back, or writing the student's answer on the board.
3. Reinforcement can be mostly positive even with a wrong answer, by giving credit for the correct parts of the answer: "Yes, I see you know how to set up the equation and solve it, but what about the decimal point?'

I. SILENCE AND NONVERBAL CUES

Characteristics:

1. Teacher silence is the essential part of this skill.
2. Nonverbal cues are used to direct student participation.
3. As the teacher talks less, the students will become more verbal and more involved.
4. As the nonverbal cues are used more often and as more effective nonverbal cues are invented, the student participation should improve.

Activities:

1. After initiating a discussion the teacher should attempt to refrain from verbal responses.
2. Logical, easily interpreted nonverbal cues are employed by the teacher, e.g., cupping the hand over the ear to indicate that the student should talk louder, a shrug of the shoulders to indicate a lack of knowledge or a look in the direction of person to indicate that it is his/her turn to talk.
3. Nonverbal cues should generally be positive.

J. PLANNED REPETITION

Characteristics:

1. The major purpose of this skill is to highlight and overemphasize key ideas and points for mastery.
2. Repetition is primarily used to create an "overlearning" of material for longer retention by the students.
3. This skill is characterized by a planned overstatement of material through a variety of techniques.

Activities:

1. The teacher can use simple repetition; the key ideas and principles are repeated immediately, perhaps in slightly different ways with each repetitious statement.
2. Spaced repetition would be used where the key points are repeated and emphasized over the period of the class or over several classes.
3. Cumulative repetition is when all the main points up to any given time in the lesson are restated.
4. The use of massed repetition is a summarization of all the key ideas and principles of the lesson, or a part of the lesson, repeated to tie in the main concept.

K. USE OF EXAMPLES

Characteristics:

1. Examples are used to explain an abstract idea in a concrete way.
2. The use of examples is essential in the understanding, clarifying, verifying, and substantiating of new or unfamiliar concepts.
3. The use of examples is basic to good, sound, clear thinking.

Activities:

1. Use analogies by relating known ideas and concepts to the unknown.
2. Start with the simplest examples and work to the more complex.
3. Use examples or objects in demonstrating that are relevant to the students' experience and knowledge.
4. Be certain to relate the example or demonstration to the idea or principle being taught.
5. Check to see whether you have accomplished the objective of your lesson by asking students to give you examples which illustrate the point you were trying to make.

THE MICROTEACHING CLINIC

At the beginning of each semester all students enrolled in the pre-student teaching course are expected to attend the microteaching clinic. The dates, times, and meeting places are always given to the students in advance. Below are listed some of the important reasons for the clinics:

1. To introduce pre-student teachers to the concept of microteaching.
2. To introduce pre-student teachers to the microteaching laboratory.
3. To give the microteaching orientation presentation.
4. To give the students an idea of what is expected of them in the microteaching component of the course.
5. To explain the microteaching administrative procedures.
6. To provide the students with an opportunity to see a demonstration of a microlesson and how it could be critiqued.

THE MICROLESSON

The microlesson is a complete, fully developed presentation which contains all the components of a regular lesson in a secondary school discipline, but including extensive use of one of the technical skills. The microlesson differs

from a classroom lesson in that the lesson content is chosen to complement the skill, since the emphasis is on learning the skill rather than the content of the discipline area being taught.

HINTS ON PLANNING FOR MICROTEACHING

1. Your lesson must be complete. However, the content of the lesson is selected to help practice the skill.
2. Remember that you have only five minutes.
3. Include as many aids as possible in your lesson.
4. If your skill deals with questions, write out all the possible questions on a piece of paper.
5. If you plan to use handouts, make sure that you have enough of them.
6. You may want to rehearse your microlesson with your roommate, friend, or spouse to make sure you are operating within the five minute time limit.
7. Check all equipment to be used in the presentation ahead of time to make sure everything is in good working condition.
8. You must always use your skill form as a basis for your lesson plan.
9. The evaluative criteria vary from skill to skill. For this reason, make sure you thoroughly understand what the criteria in your particular skill area are (See Appendix C)
10. Since you do not know how successful your lesson is going to be, it is always advisable to expect the unexpected.

THE MICROTEACHING LESSON PLAN (See Appendix A)

The microteaching lesson plan is a complete plan containing all the elements of any lesson plan; objectives, content, methods, materials, and evaluation.

The Objectives

Like any good lesson plan the microteaching lesson plan starts with the objectives of the lesson. However, the microteaching plan varies from

a regular lesson plan in one important respect. Since the presenter, the pre-student teacher, is the student in this instance, the objective is for the student to learn something. Therefore, the objective, in order to be student oriented, must be directed at the presenter. For example, "To demonstrate how the 'Use of Examples' can be employed to teach factoring" is a proper objective.

The Content

The content section of the microteaching plan should contain the information included in a normal lesson plan, the information and concepts which will be presented to the class. In a regular lesson it would be important for the students to master this content so appropriate teaching skills and methods would be selected to assist in this mastery. In the microteaching lesson it is the skill which is to be mastered, not the content. Therefore, the content is selected to help master the skill. For example, the following might be a list of contents appropriate for the example objective in the preceding secion:

1. Common monomial factors
   a. constants
   b. variables
2. a. constants only
   b. variables only
   c. combinations

Procedure

The procedure should explain how the content is to be presented. What is the presentation going to do, and what are the students going to do?

The emphasis is on how the technical skill is to be used in the lesson. For example, procedure for the preceding content might start as follows:

1. Tell the class that Mr. Jones has two horses and ten cows. Write this on the blackboard.

2. Ask, "If Mr. Smith has one-half as much livestock as Mr. Jones, how many horses and cows does he have?"
3. When a student gives the correct answer (one horse and five cows), write Mr. Jones' livestock in symbolic form (2H + 10C).
4. Show that this is equivalent to 2(H + 5C), or twice the livestock of Mr. Smith (H + 5C). Use the overhead projector.
5. Demonstrate this with paper models.
6. Explain that this is removing a common monomial constant factor from an expression.
7. Have the students give an example of a common variable factor.
8. (Continue the lesson.)

Materials

This section of the plan should include all the materials which will be needed in the lesson. The previous section should suggest the materials to be listed in this section. For example:

1. Chalkboard
2. Overhead projector
3. Paper models of horses and cows

Evaluation

The evaluation section of a lesson plan is designed to determine whether or not the objectives of the lesson are met. In the plan discussed in the previous sections, the objective was "to demonstrate the skill 'The use of examples' in a lesson on factoring." Some pertinent questions to ask might be:

1. Was a sufficient quantity of examples employed?
2. Were there concrete and abstract examples in the lesson?
3. Did the examples go from the concrete to the abstract?
4. Was a new example employed?

USE OF AIDS IN A MICROLESSON

In addition to the skills discussed above, there are several other things to consider in preparation for your microlesson. For example, the chalkboard is the microteacher's best friend. Kim and Kellough give a very comprehensive list of things to remember when using the chalkboard. They are as follows:

1. Erase the old chalkboard writing before you begin your teaching.
2. Use the chalkboard extensively for visual cues, especially for slow learners; headline the subtopics; names of persons, place, and terminologies; etc.
3. Avoid long and crowded writing; you need to plan the layout of the materials to be written on the chalkboard.
4. Write or print legibly, large enough to be seen by all the students. Either write or print, but be consistent. Check whether the students in the back can see the last two or three lines of your writing. Keep the lines of writing reasonably straight.
5. Refrain from talking when you face the blackboard. Stand to one side of the material when talking, facing the students.
6. Practice writing on the chalkboard. Use transparencies for overhead projection if you can write better on them.
7. When you have quite a bit to write on the chalkboard, economize the chalkboard space by starting at your far left. Do not erase the writing too often (Kim, 1974).

When using audio-visual aids, the microteacher should:

1. Make sure all equipment is in good working condition--bulbs, extension cords, lenses, etc.
2. Be sure you know how to operate the equipment, just in case the projectionist fails to show up.

3. Review all the materials such as films, slides, or pictures before using them.

When using pictures and charts:

1. Make sure charts or pictures are large enough for your group size.
2. Color charts seem to be more attractive than black and white ones.
3. If charts or pictures are small, use an opaque projector to enlarge their size.
4. Use a pointer to point to certain parts of a chart or picture.
5. Give students enough time to examine a picture or chart in a book.
6. If you make your own charts, make sure the printing is large and clear.

When using artifacts or objects:

1. Make sure you give clear instructions on handling some valuable objects such as Chinaware, glass, etc.
2. Get the real thing if you can use it, instead of using something that resembles it.

THE VIDEO-TAPING SESSION

On a given date and time the microteacher is expected to report to a specific place to have his/her microlesson video-taped. Certain points are worth remembering:

1. Groups range from four to six in size.
2. The microteacher uses his or her peers or classmates as "students."
3. If specific arrangements are to be made (e.g., moving of furniture for activities) the microteacher must alert the camera operator of these changes.
4. The microteacher may choose to stand up or sit down on a chair while presenting a lesson, depending upon the nature of the lesson.
5. The entire group is video-taped during the same session.

THE CRITIQUE SESSION

Immediately following the taping session, the whole group goes to a specific room for the critiquing session, sometimes called the "post mortem". Below is an outline of the general format of a typical critique session. Each segment or presentation is played back and critiqued individually.

1. The critiquer or facilitator asks the microteacher whose segment is to be discussed to tell the group why they think we use the particular skill they demonstrated in a teaching situation, or how they decided to present their skill.
2. The segment is played back and comments may be made as the critiquer deems necessary or they may be held until the playback is over.
3. After the playback the critiquer asks the microteacher whose segment they had been watching to make any comments on it.
4. The cirtiquer would then make some comments on his or her observations and then invite the "class" to make comments or suggestions to the microteacher.
5. The same procedure is repeated for each one of the presentations.

THE SKILL FORMS (See Appendix B)

The skill forms are quite different from microlesson plans. The lesson plans give an outline of the material to be covered, whereas skill forms give the microteacher an idea of what the evaluative criteria will be. The skill forms vary in their content and areas of expectation, but there are some common elements among them. The elements are divided into two major classes--target skill behaviors and related basic skills.

Target skill behaviors are skills involving such elements as the microteacher's knowledge of the skill, organization of the lesson, choice of lesson content and skills directly related to the particular skill being demonstrated.

THE CRITIQUE SHEETS (See Appendix C)

The critique sheets are intended to give the microteacher an idea of the microlesson evaluative criteria on the scale, "5" is the highest while "1" is the lowest. Related basic skills include skills related to the dynamics of the presentation. They include things such as the microteacher's general enthusiasm, class or student involvement, imagination, organization, creativity, and degree of preparation.

SUMMARY

The microteaching concept of teacher preparation was developed in the early 1960's at Stanford University, by Doctors Dwight Allen, Kevin Ryan, Robert Bush, and James Cooper. Research studies which have been conducted indicate that microteaching is an effective way of training teachers.

Different institutions have adopted the Stanford model and modified it to suit their own local situations. Variation of the model is noticeable in the length of microlessons, critque sheets or forms, and the general organization of the experiences. As a method of preparing instructors, microteaching has proven to be an effective tool.

APPENDIX A

MICROTEACHING LESSON PLAN

Microteacher's name_____ Date_____

Lesson Topic_____

Skill(s) to be demonstrated (e.g. Closure, Examples, etc.)_____

_____

Behavioral Objectives:

By the end of the lesson the students will be able to:

Content:

Procedures:

Materials

Evaluation

Microteacher's signature_____

Evaluator's signature_____

APPENDIX B

Questioning Skills

CHARACTERISTICS - The purpose of this skill is to make the teacher comfortable when asking questions. The emphasis is on how many general questions can be asked. The questions should be factual and based on retention. This skill is easiest when the answers follow a distinct structure within a pattern.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of content

---

* Factual questions with answers based on recall
* Clear and concise working of questions
* Questions suitable to student knowledge
* Fluency demonstrated; fifteen (15) or more questions asked

---

* Ample time for complete student answers
* All responses accepted equally

Application - This skill is most easily demonstrated when the questions follow structure within a pattern. Identify a topic from your major area of study and describe the pattern development below:

Questioning Skills

CHARACTERISTICS - Higher order questions require the students to use ideas, rather than just remembering them, and employ their thinking skills. They require the use of both inductive and deductive reasoning to:

Infer	Compare	Perceive relationships
Solve problems	Evaluate	Demonstrate concept understanding

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of content

---

* Clear and concise wording of questions
* Established past knowledge before asking higher order question
* Balanced ratio of higher order and factual questions
* Required thinking, reasoning, and application of knowledge
* Employed reflection and inductive-deductive reasoning skills

---

* Receptive to all answers, using individual and group contributions as reference for future questions

Application - Identify a topic in your major area. Write five questions which would allow the students to: _____
topic

infer -

solve problems -

evaluate -

compare or perceive relationships -

demonstrate concept understanding -

PROBING QUESTIONS

Questioning Skills

CHARACTERISTICS - Probing questions usually occur immediately after a student response. They attempt to prompt the student to go beyond their first answer, by justifying or clarifying the initial response.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of content

---

* Questions build on previous responses
* Probes occur immediately following the initial responses
* Probes require justification or clarification of first response
* Questions are clearly and concisely worded

---

* Prompted or gave hints when necessary
* Elicited personal interpretation or reflection from students
* support given to avoid probes becoming threatening

Application - Probes place pressure on the student to expand their first response by justifying or clarifying it. When demonstrating this skill the teacher should take great care to support and encourage the student so that the probes are not seen as a personal attack upon the student. In the film the teacher asks some questions which justify and others which clarify. Note the difference and record ways the teacher reinforced and supported the students while probing:

DIVERGENT QUESTIONS

Questioning Skills

CHARACTERISTICS - Divergent questions have no correct answers. They are usually open-ended and generally related to the topic. They are structured to elicit responses that are creative and imaginative. The teacher must accept all answers equally and encourage further answers that explore new or different aspects of the general times.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of content

---

* Clear and concise wording of questions
* Questions asked for creative and imaginative responses
* Questions sought affective responses; feelings and values
* Questions were open-ended with no correct answer

---

* Students encouraged to draw from their experiences and use their own ideas when responding
* Directed questions to avoid one person dominating discussion
* Remained neutral to all answers

Application - Divergent questions are worded to encourage responses that are affective, creative, original, and drawn from the student's personal experience. The teacher plays a supportive role without praising any answer that would direct future discussion. Identify a topic from your major area of study that could be used to demonstrate this important questioning skill:

SET INDUCTION

Creating Student Involvement

CHARACTERISTICS - Set induction is an initiating activity used by the teacher to motivate the learner. The goal of the skill is to properly prepare and involve students in upcoming tasks. Set induction is characterized by novel and interesting introductions, and facilitates future communication. There are two types of set induction:

Motivating Set and Facilitating Set

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of lesson content

---

* Content and presentation motivated students to perform the activity
* Teacher behavior was enthusiastic and motivating
* Established a common frame of reference
* Asked thought-provoking questions
* Exciting pace and good timing
* Set induction was novel, established mental set, and facilitated the transfer to the forthcoming lesson

Application - The teacher provides a motivating set and then leads the students to a facilitating set. Describe how this is done:

STIMULUS VARIATION -32-

Creating Student Involvement

CHARACTERISTICS - Stimulus variation is the skill of changing the class presentation so that the teacher does not become boring and the students do not become bored. This is done by varying both the verbal and nonverbal strategies of the teacher. Its purpose is to keep the students' attention by involving both the cognitive and affective domains.

Target Skill Behaviors

* Knowledge of the skill

* Organization of the lesson

* Creative and appropriate choice of lesson content

---

* Multiple shifting of sensory channels

* Verbal variation: inflection, cadence, volume, pitch, pausing and emphasis of key words or concepts

* Sense of humor

* Nonverbal variation: body movements, gestures

* Facial expression

---

* Varied patterns of interaction between and among students and teacher

* Use of audio-visual aids and equipment, or example

Application: From topics in your major area of study identify subjects which could involve the following senses:

taste

touch

smell

Identify a topic area which could allow for pupil-pupil interaction:

Creating Student Involvement

CHARACTERISTICS - Closure is used when the teacher wishes to help the students see the total concept or central theme of the pieces of information presented in a lesson. Closure can be attained at any point in the lesson when past cues can be used to signify the wholeness of a lesson. It is attained when the major purposes and principles of a lesson are judged to have been learned so that new knowledge can be related to past knowledge.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of lesson content

---

* Lesson organized to consolidate past points and ideas
* Helped students see total concept by summarizing component parts
* Linked past and present. Joined current knowledge to future concepts.

---

* Good timing
* Helped students draw inferences
* Closure facilitated a sense of achievement
* Pointed questions elicited student response

Application - Closure is a recapping or summary of past material learned and used for future learning. This course has previously introduced you to a variety of concepts and principles. Identify at least three (3) principles which were expanded by the film viewing:

REINFORCEMENT

Increasing Student Participation

CHARACTERISTICS - The teacher dispenses most rewards and praise within the classroom. Positive reinforcement increases the likelihood that behavior will be repeated. This skill demonstrates the use of positive reinforcement in verbal and nonverbal ways to increase student participation.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of lesson content

_____

* Used a variety of reinforcers: eye contact and facial expression
* Posture, nodding and attending behaviors
* Used an appropriate amount of verbal reinforcement
* Varied reinforcing words and phrases

_____

* Used positive reinforcement for the whole class
* Allowed for peer group reinforcement by building discussion on student contributions and acknowledging contributor
* Used the chalkboard to write down student's ideas

Application - Describe how the teacher used his body to reinforce the students:

Head?

Trunk?

Hands?

SILENCE AND NONVERBAL CUES

Increasing Student Participation

CHARACTERISTICS - Silence and nonverbal cues are powerful means of communication. They allow the teacher to control and direct classroom interaction without talking. On this film the nonverbal cues are dramatic to the extreme, yet the teacher effectively controls and directs the discussion.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of lesson content

_____

* Used cues to elicit positive rather than negative responses
* Cueing elicited the desired responses
* _____
* Used nonverbal cues: eyes, face, hands, and body
* Used pausing to pressure, redirect or continue response
* Tolerated silence and pausing by the students
* _____
* Elicited participation by the entire group
* Maintained class control and directed student discussion

Application - Write a short answer to the following questions:

1) Why did the teacher choose a topic which was controversial?

2) What emotions are shown by students during long periods of silence, and are those emotions beneficial?

USE OF EXAMPLES

Presentation of skills

CHARACTERISTICS - Examples are used to explain an abstract idea in a concrete way. The use of examples is often essential to the understanding, clarifying, verifying or substantiating of new or unfamiliar concepts. Careful analysis of the new concept must be made so that the examples used begin with the simplest and work towards the more complex.

Target Skill Behaviors

* Knowledge of the skill
* Organization of the lesson
* Creative and appropriate choice of lesson content

---

* Used actual articles rather than models or pictures when possible
* Used models or pictures rather than verbal description
* Related examples to ideas and concepts being taught
* Based on student knowledge and experience, started with simplest and moved towards more complex

---

* Used a variety and appropriate number of examples
* Introduces examples at an appropriate pace throughout the lesson
* Related unknown concepts to known facts through analogies

Application

Define analogy:

Identify a topic in your major area which could be presented through articles, models or pictures rather than simple verbal description:

PLANNED REPETITION

Presentation Skills

CHARACTERISTICS - Planned repetition is used to overemphasize and highlight key points and ideas within a lesson. This creates an overlearning of material for longer retention by the students. Using a variety of techniques, planned repetition overstates the material being learned.

Target Skill Behaviors

* Knowledge of the skill

* Organization of the lesson

* Creative and appropriate choice of lesson content

  _____

* Clarified and reinforced major ideas and concepts, key words, and central principles

  _____

* Type of repetition fitted to material and student abilities:

* Varied repetition type to maintain interest

* Used at least two types of repetiton: _____ simple, _____ spaced, _____ cumulative, _____ mass.

* Repeated objectives adequately for mastery to occur

* Timed appropriately during the lesson

* Planned overstatement of material to create an overlearning situation for longer student retention

Application - There are four distinct types of planned repetition demonstrated in the film. Record the topic from the film and search your own subject area to also list a possible topic for future use:

	Film	Subject area
simple -		
spaced -		
cumulative -		
massed -		

APPENDIX C

FLUENCY IN ASKING QUESTIONS

NAME_____ COORDINATOR_____ TOPIC_____

DATE_____ What activities, techniques, etc. will you use to implement this skill?_____

How will this skill help the students learn?_____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Organization of lesson					
Relevancy of questions					
Questions suitable to knowledge					
Many profitable questions					
Factual questions					
Clarity of questions					
Ample time for answers					
Number of questions					
Total Average (a)					

Related Basic Skills (Check appropriate box)

	1	2	3	4	5
Enthusiasm					
Student Involvement					
Reinforcement					
Imaginative presentation					
Degree of planning					
Total Average (b)					

.8 x a___ = (c)

.2 x b___ = (d)

Total = (c) + (d)_____

Additional comments_____

_____

_____

_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

_____

_____

_____

This tape may be retained as a good example of this skill. YES [ ] No [ ]

Student's signature_____

PROBING QUESTIONS

Name_____ Coordinator_____ Topic_____

Date_____ What activities, techniques, etc., will you use to implement this skill?_____

How will this skill help the students learn?_____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Students response to probing					
Questions build on previous responses					
Immediate follow-up questions with probes					
Clarity in questioning					
Required justification or clarification of first response					
Personal interpretation from student					
Prompted or gave hints when necessary					
Total Average					

Additional Comments_____

_____

_____

_____

_____

Evaluator's signature_____

Student's Comments: additions or opposition to the evaluation_____

_____

_____

This tap may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature_____

HIGHER ORDER QUESTIONS

Name_____ Coordinator_____ Topic_____

Date_____ What activities, techniques, etc., will you use to implement this skill? _____

How will this skill help the students learn? _____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Degree of preparation					
Established student knowledge before asking questions					
Required thinking, reasoning skills--to use rather than just remember ideas; allowed creative reaction, just one answer					
Used a variety of higher order questions					
Receptivity to the answer obtained					
Provided opportunity for student evaluation of what was said					
Ratio between higher and lower order questions					
Student performance of task called for by the questions					
Total Average					

Additional Comments_____

_____

_____

_____

_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

_____

_____

This tap may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature_____

DIVERGENT QUESTIONS

Name_____ Coordinator_____ Topic_____

Date_____ What activities, techniques, etc., will you use to implement this skill?_____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Degree of preparation					
Acceptance of all responses equally, with none considered wrong					
Degree of creativity and originality					
Questions induced creativity in feelings, value clarification					
Allowed students' answers to diverge in several directions					
Questions open-ended (but generally related to the topic)					
Used positive reinforcement (unnecessary)					
Promped students to use their ideas (to draw from experience)					
Allowed for further expansion of other students' comments					
Class involvement					
Total Average					

Additional comments_____

_____

_____

_____

_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

_____

_____

_____

This tape may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature_____

SET INDUCTION

Name_____ Coordinator_____ Topic_____

Date_____ What activities, techniques, etc., will you use to implement this skill?_____

How will this skill help the students learn?_____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
The set induction motivated or would motivate students to perform the activity					
Asked thought-provoking questions					
Good timing in information input to maintain interest					
Told just enough to arouse interest, bot not too much					
Established common frame of reference					
Allowed for interaction of students					
Personal enthusiasm					
Total Average					

Additional comments_____

_____

_____

_____

_____

Evaluator's signature_____

Student's comments: addition or opposition to the evaluation_____

_____

_____

_____

This tape may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature

STIMULUS VARIATION

Name_____ Coordinator_____ Topic_____

Date_____ What activities, techniques, etc., will you use to implement this skill? _____

How will this skill help the student learn?_____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Degree of preparation					
Verbal Techniques: voice inflection, cadence, volume, pitch, repetition--key word variation, humor					
Non-verbal: gesturing, body movements, facial expression, etc.					
Vary interaction: pupil-pupil, teacher-pupil, pupit-teacher					
Development; absorption, analyzing, questions conclusions					
Use of different types of stimulus variation					
Shift of sensory channels					
Student involvement					
Total Average					

Additional comments _____

_____

_____

_____

_____

Evaluator's Signature_____

Student's comments: additions or opposition to the evaluation _____

_____

_____

This tape may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature_____

CLOSURE

NAME_____ COORDINATOR_____ TOPIC_____

DATE_____ What activities, techniques, etc., will you use to implement this skill?_____

Target Skill Behaviors) Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Content organized around a central theme					
Used link between past and present					
Helped students review previous learning					
Organization					
Good timing					
Helped students draw inferences					
Closure facilitated sense of achievement					

Additional comments_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

This tape may be retained as a good example of this skill. YES ☐ NO ☐

Student's signature_____

REINFORCEMENT

NAME_____ COORDINATOR_____ TOPIC _____

DATE_____ What activities, techniques, etc., will you use to implement this skill?_____

How will this skill help the students learn?_____

Target Skill Behaviors (check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Organization of lesson					
Use of variety of reinforcers--eye contact, non-verbal cues, nodding, listening, facial expression					
Use of verbal reinforcers					
Allow for peer group reinforcement					
Use of positive reinforcement for the whole class					
Use of chalkboard to write down student's ideas					
Use of certain reinforcement words					

Total of any 6 best items_____(a)
Average of any 6 best items_____

Related Basic Skills (Check appropriate box)

	1	2	3	4	5
Enthusiasm					
Student involvement (class participation					
Use of diagrams, pictures, a/v aids					
Degree of class control					
Imaginative presentation					
Positive rapport with class					

Total of any 3 best items_____(b)
Average of any 3 best items_____

Final grade (a) + (b) = _____

Additional comments_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

This tape may be retained as a good example of this skill YES[ ] NO[ ]

Student's signature_____

SILENCE OR NONVERBAL CUES

NAME_____ COORDINATOR_____ TOPIC_____

DATE_____ What activities, techniques, etc., will you use to implement this skill?_____

How will this skill help the students learn? _____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Any different types of nonverbal cues evident					
Cueing procedure brought about desired responses					
Teacher's tolerance level for silence					
Signs of boredom (either teacher or student)					
Use of cues to elicit positive rather than negative responses					
Use of pausing (to pressure, redirect, or continue response)					
Mannerism generated participation by entire group					
Total Average					

Additional comments_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

This tape may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature_____

EXAMPLES

NAME_____ COORDINATOR_____ TOPIC_____

DATE_____ What activities, techniques, etc., will you use to implement this skill?_____

How will this skill help the students learn?_____

Target Skill Behaviors (Check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Used a variety of examples, with quantity being appropriate					
Started with simplest (related to student experience) and worked toward more complex					
Related examples to ideas or principles being taught (examples identified and explained)					
Used actual models instead of verbal description (when appropriate)					
Used analogies by relating known ideas, concepts to unknown					
Total Average					

Additional comments_____

_____

_____

Evaluator's signature_____

Student's comments: additions or opposition to the evaluation_____

_____

_____

This tape may be retained as a good example of this skill. YES ☐ NO ☐

Student's signature_____

REPETITION

NAME _____ COORDINATOR _____ TOPIC _____

DATE _____ What activities, techniques, etc., will you use to implement this skill? _____

How will this skill help the students learn? _____

Target Skill Behaviors (check appropriate box)

	1	2	3	4	5
Knowledge of skill					
Adequate repetition for mastery of knowledge or skill					
Varied repetition to maintain interest					
Timed appropriately over unit of instruction					
Type of repetition used was fitted to material and students (simple, spaced, cumulative or mass)					
Avoided repeating ideas too often so as to bore students					
Clarified and reinforced major ideas, key words, principles, etc.					
Planning evident--built toward overstatement of material through a variety of techniques					
Total Average					

Additional comments _____

Evaluator's signature _____

Student's comments: additions or poopsition to the evaluation _____

This tape may be retained as a good example of this skill. YES [ ] NO [ ]

Student's signature _____

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